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Gullberg, Kajsa

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Comparing Planning Processes in Smartphone Text Messaging to Traditional Writing

KAJSA GULLBERG | LUND UNIVERSITY | CENTRE FOR LANGUAGES AND LITERATURE
kajsa.gullberg@ling.lu.se

Introduction and Aim

The aim of this experimental study is to compare people's planning processes during smartphone texting to their planning processes during traditional, monological writing. At what locations do pauses occur in the two conditions? And is there a difference in the length of the production bursts?

> One key difference between writing and texting is that despite both of them being communicative, texting may have a temporally present yet spatially absent reader of the text – meaning that the reader in texting is able to ask questions if something is unclear.

Method

13 dyads spoke and texted together, and then wrote an individual blog post in the keystroke logging program ScriptLog.
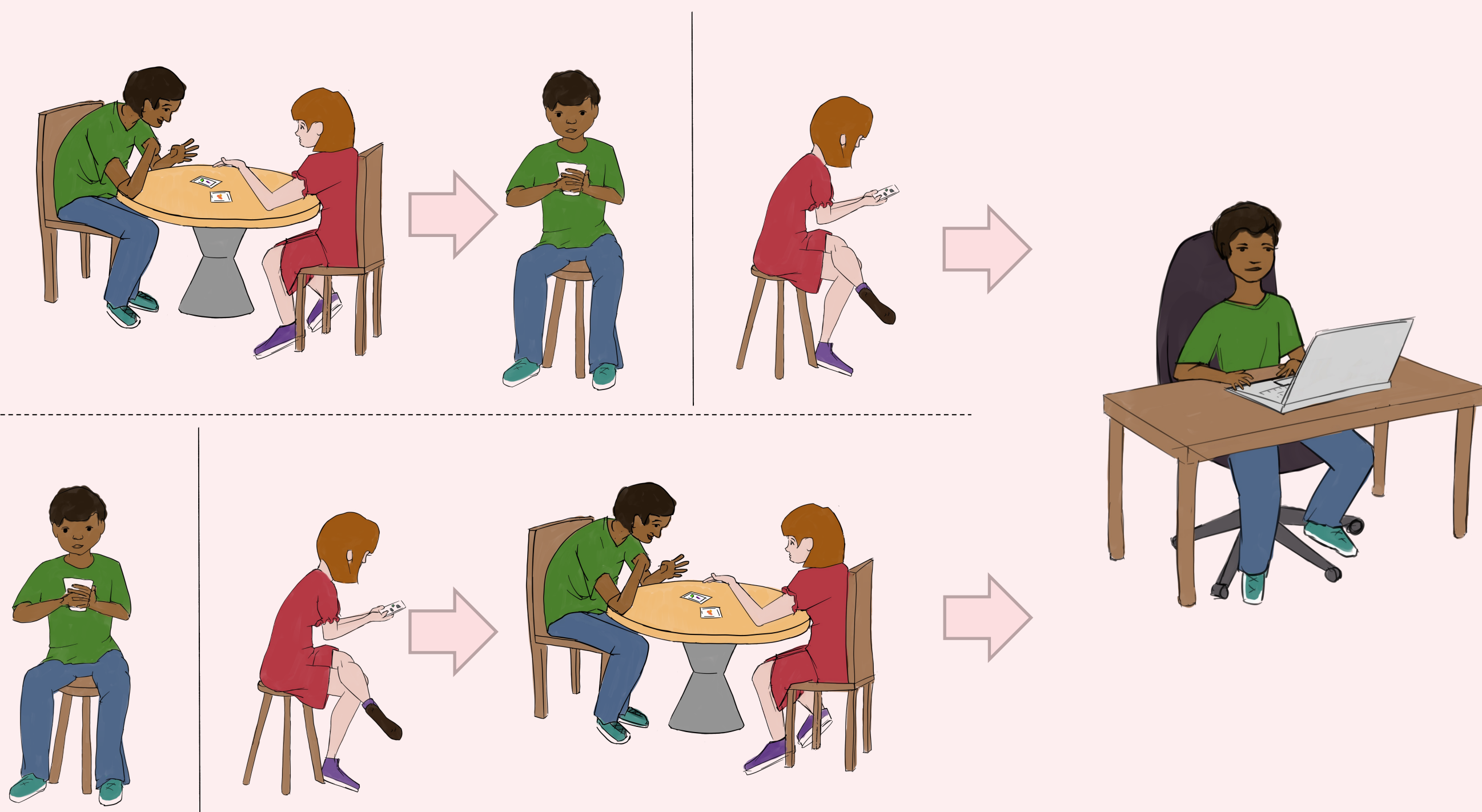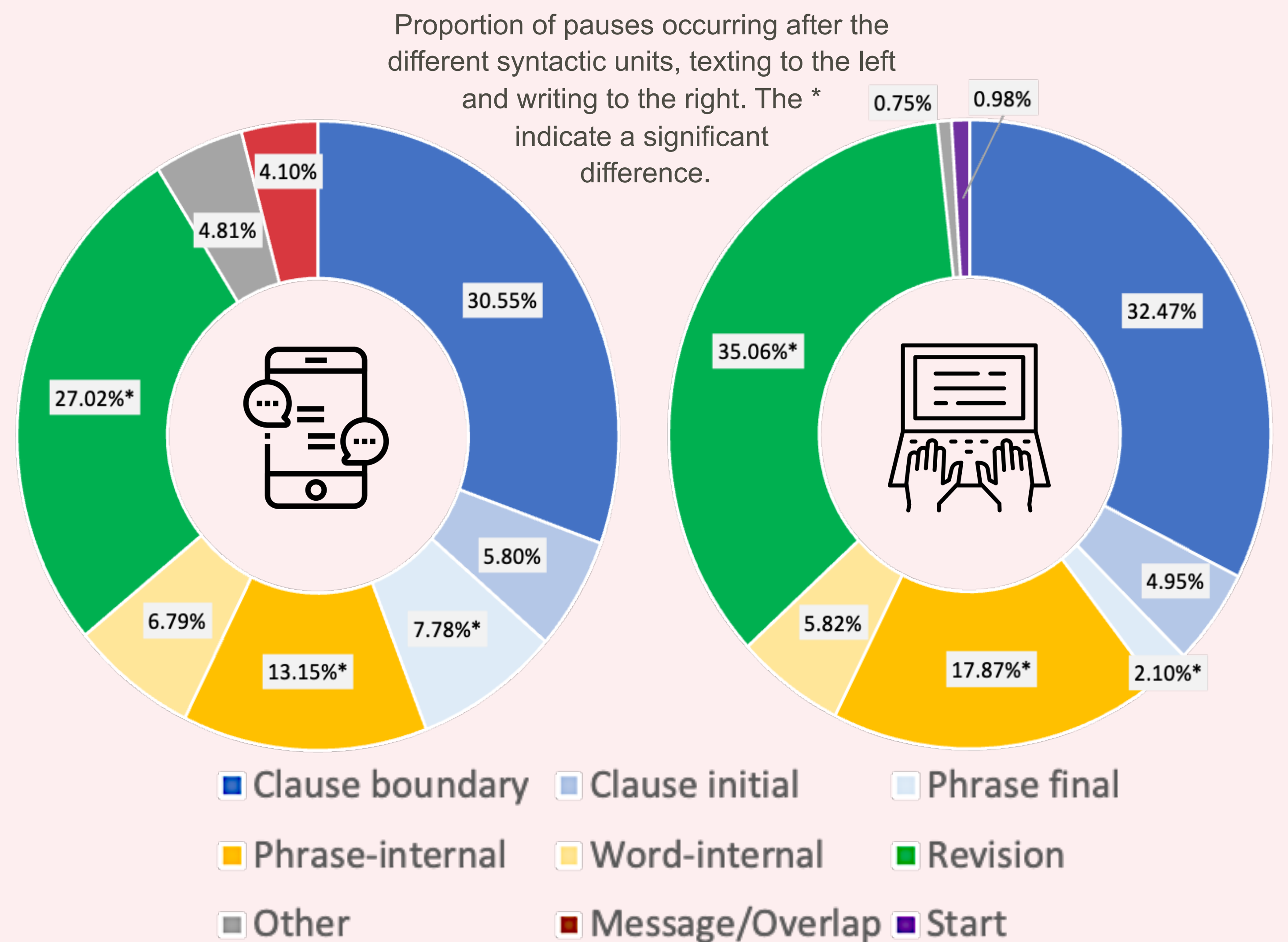
Planning processes for texting and writing were examined through pause analyses. The pause threshold was 1 second in texting and 2 seconds in writing.

Pauses were coded based on the unit that preceded them: *clause boundary, clause initial (word)*, *phrase final*, *phrase-internal*, *word-internal*, *revision*, *message/overlap*, or *other*. The number of words produced between pauses were counted to measure the length of production bursts.

References

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Proportion of pauses occurring after the different syntactic units, texting to the left and writing to the right. The * indicate a significant difference.

Texting:
- Clause boundary 30.55%
- Clause initial 5.80%
- Phrase final 7.78%*
- Phrase-internal 13.15%*
- Word-internal 6.79%
- Revision 27.02%*
- Other 4.81%
- Message/Overlap 4.10%

Writing:
- Clause boundary 32.47%
- Clause initial 4.95%
- Phrase final 2.10%*
- Phrase-internal 17.87%*
- Word-internal 5.82%
- Revision 35.06%*
- Other 0.75%
- Start 0.98%

Legend:
- Clause boundary
- Clause initial
- Phrase final
- Phrase-internal
- Word-internal
- Revision
- Other
- Message/Overlap
- Start

Data Typing by Azam Ishaq from NounProject.com
Chat by Suppakorn Srikaew from NounProject.com

Results

There was no significant difference in the proportion of pauses in speaking or writing that were **between clauses**, **word-internal** or after a **clause initial word**.
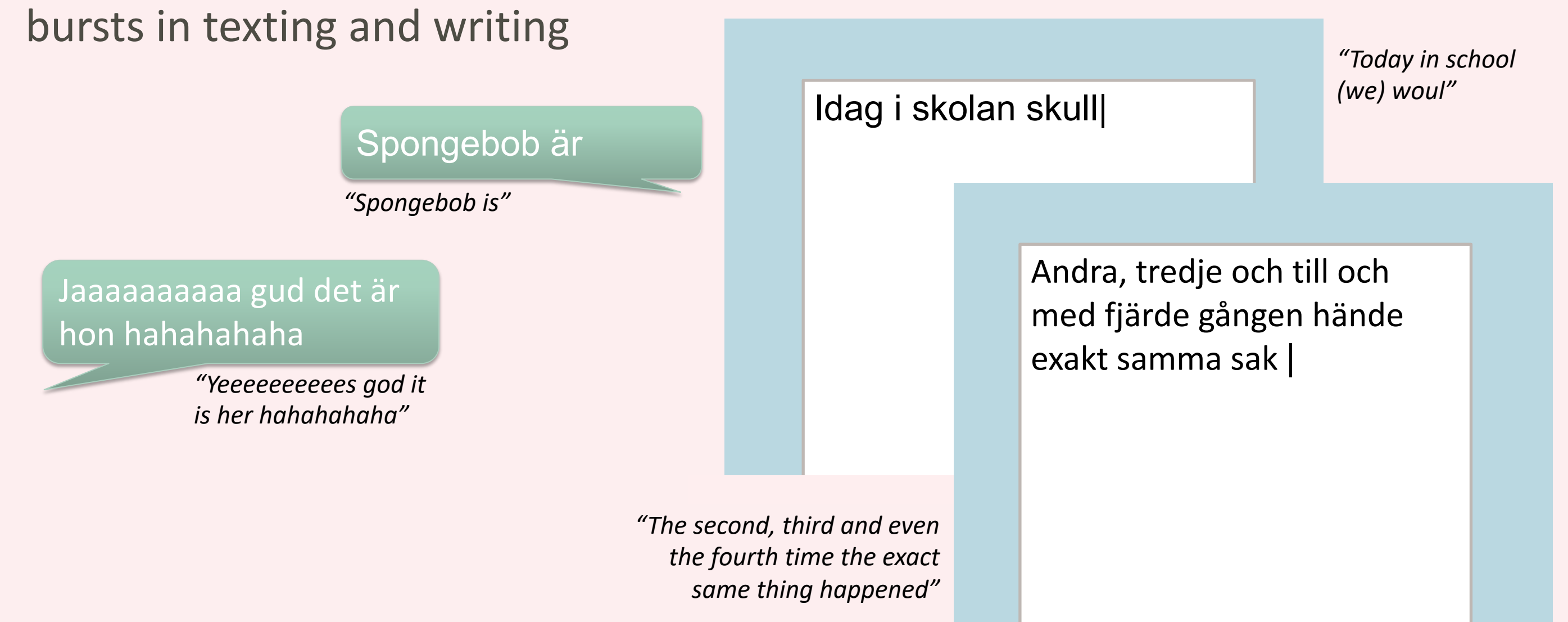
In writing, pauses preceded by a **revision** or that were **phrase-internal** were significantly more common than in texting.

In texting, pauses that were preceded by a complete **phrase** were significantly more common than in writing.

> There were similarities between texting and writing, but also some differences. Most pauses in both texting and writing occurred at syntactic boundaries of some kind, but there were more revisions in writing.

The mean length of production bursts was significantly shorter in texting, with 2.5-5.9 words per burst across the participants, in writing the mean length was 3.4-11.9 words per burst.

Examples of the shortest and longest *mean* length of production bursts in texting and writing

Spongebob är
"Spongebob is"

Jaaaaaaaaaa gud det är hon hahahahaha
"Yeeeeeeeeees god it is her hahahahaha"

Idag i skolan skull|
"Today in school (we) woul"

Andra, tredje och till och med fjärde gången hände exakt samma sak |
"The second, third and even the fourth time the exact same thing happened"

Conclusions

❖ We prefer to plan and produce language in complete syntactic units (e.g. clauses, phrases).

❖ Production bursts are shorter in texting than in writing.
 ▪ The **temporally present reader** makes the texting setting dialogical which requires quick answers.

❖ Traditional writing contains more revisions.
 ▪ It is important that the reader, who is spatially and temporally absent, can **understand without the direct context** where the text was written.